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(54) **ALERT DRIVEN INTERACTIVE INTERFACE TO A WEBSITE MINING SYSTEM**

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G06F 17/30   (2006.01)
G06F 17/22   (2006.01)

(52) **U.S. Cl.**
CPC *G06F 17/2247* (2013.01); *G06F 17/30867* (2013.01); *G06F 2216/03* (2013.01)

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CPC G06F 17/30864; G06F 17/3005; G06F 17/2247; G06F 2216/03
USPC 707/706, 707, 708, 709, 710, 736
See application file for complete search history.

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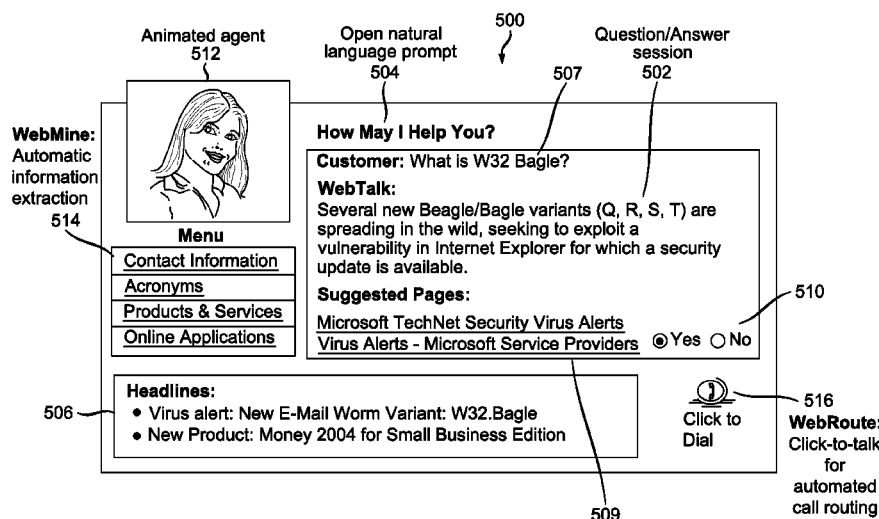*Primary Examiner* — James Trujillo
Assistant Examiner — Fatima Mina
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(57)   **ABSTRACT**

Disclosed is a web server that includes a headlines module for automatically generating headlines based on data retrieved from a network (e.g., World Wide Web). The web server also includes an interactive agent for generating responses to inquiries relating to the headlines based on the data.
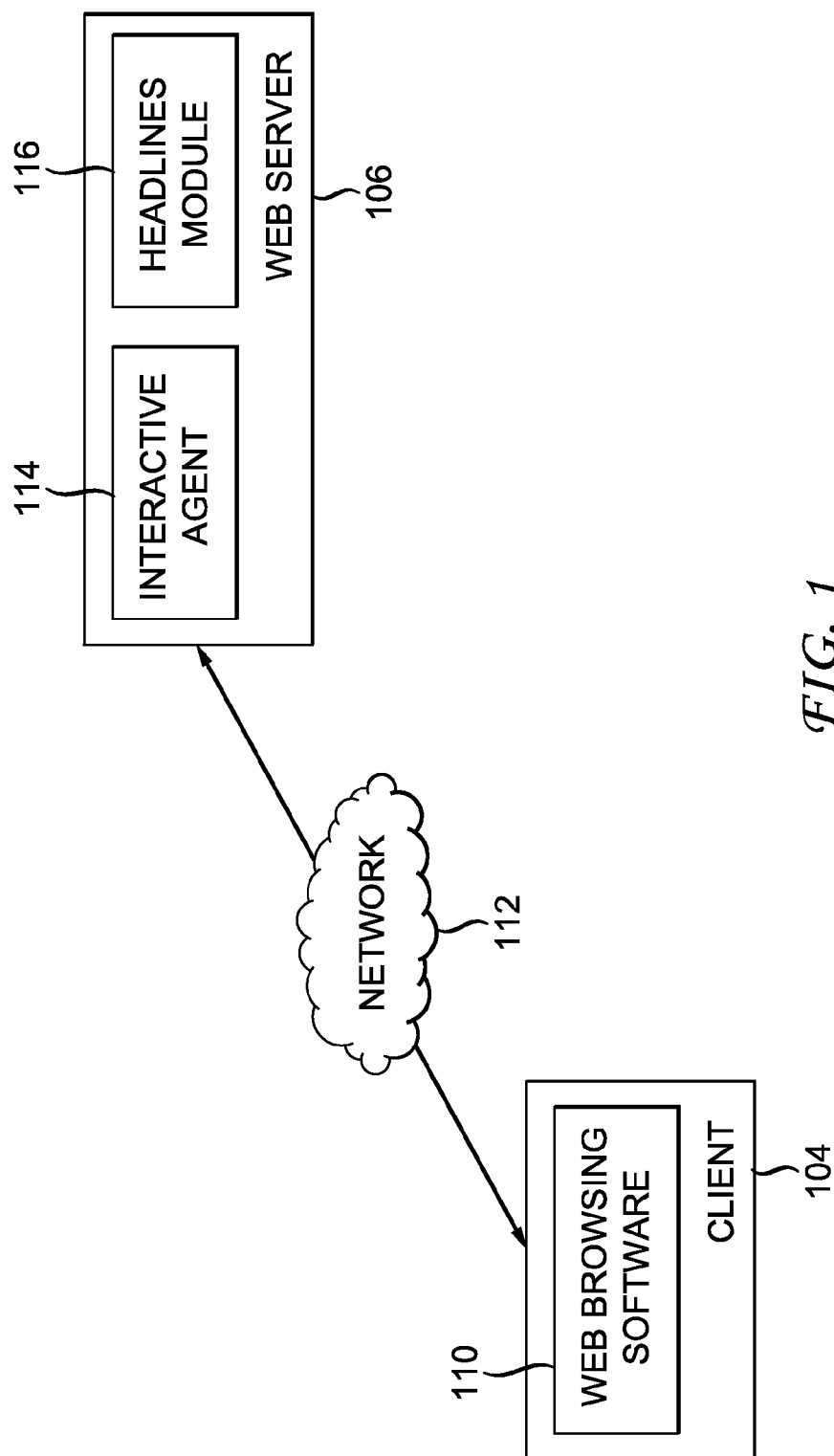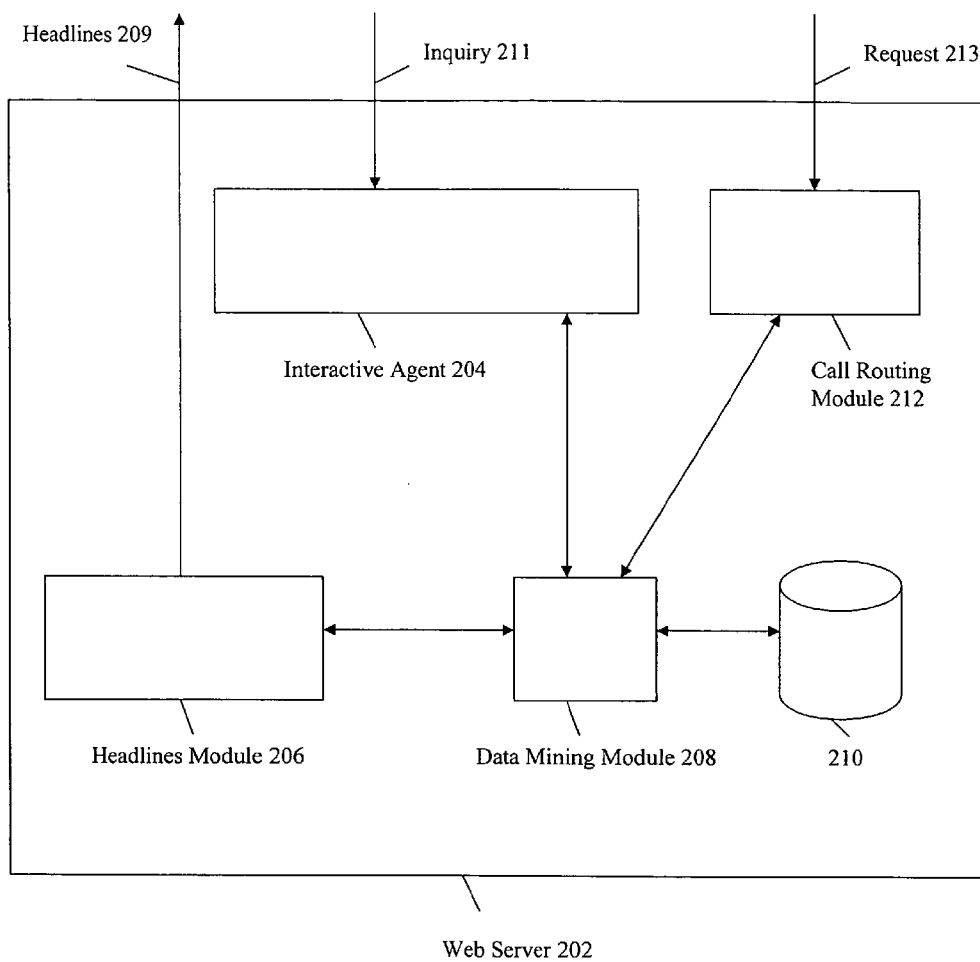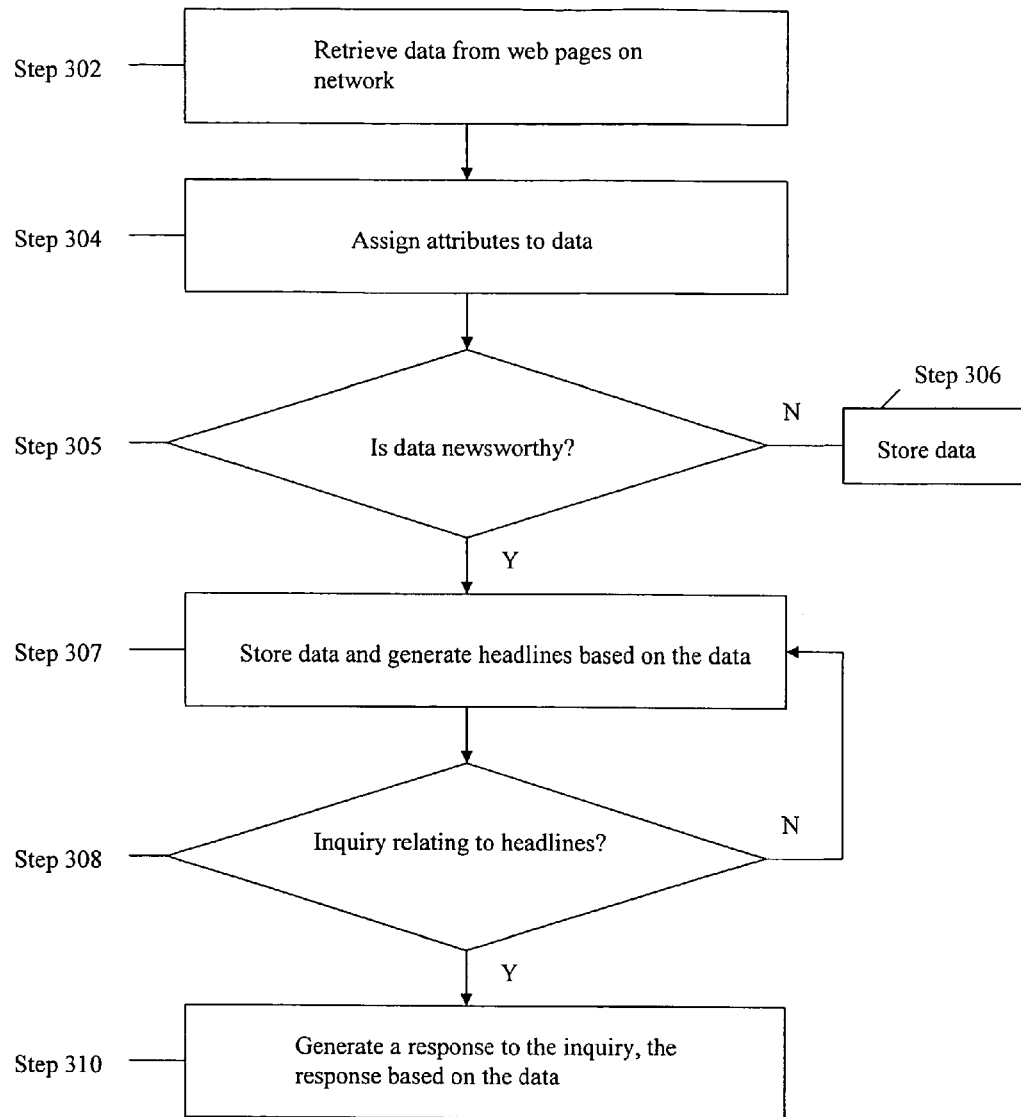
5 Claims, 5 Drawing Sheets

FIG. 1

Headlines 209

Inquiry 211

Request 213

Interactive Agent 204

Call Routing
Module 212

Headlines Module 206

Data Mining Module 208

210

Web Server 202

FIG. 2

Step 302 — Retrieve data from web pages on network

Step 304 — Assign attributes to data

Step 305 — Is data newsworthy?

Step 306

N → Store data

Y

Step 307 — Store data and generate headlines based on the data

Step 308 — Inquiry relating to headlines?

N

Y

Step 310 — Generate a response to the inquiry, the response based on the data

FIG. 3

FIG. 4

Animated agent
512

WebMine:
Automatic
information
extraction
514

Open natural
language prompt
504

500

Question/Answer
session
502

507

How May I Help You?

Customer: What is W32 Bagle?

WebTalk:
Several new Beagle/Bagle variants (Q, R, S, T) are
spreading in the wild, seeking to exploit a
vulnerability in Internet Explorer for which a security
update is available.

Suggested Pages:
Microsoft TechNet Security Virus Alerts
Virus Alerts - Microsoft Service Providers

510

◉Yes ○No

Menu

Contact Information

Acronyms

Products & Services

Online Applications

Headlines:
● Virus alert: New E-Mail Worm Variant: W32.Bagle
● New Product: Money 2004 for Small Business Edition

506

509

516

Click to
Dial

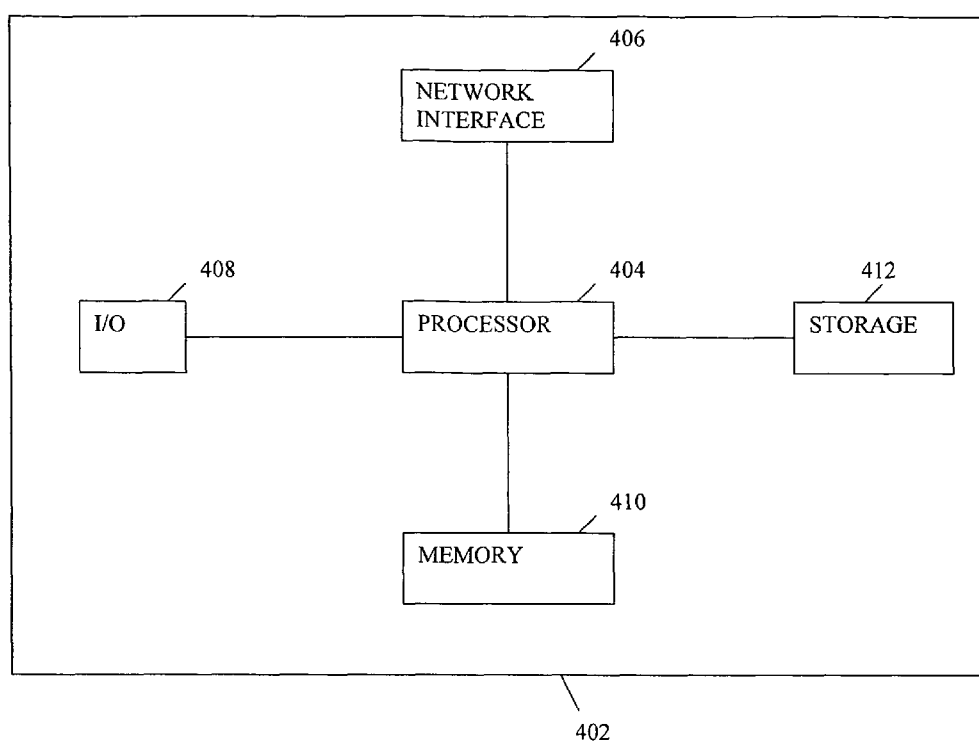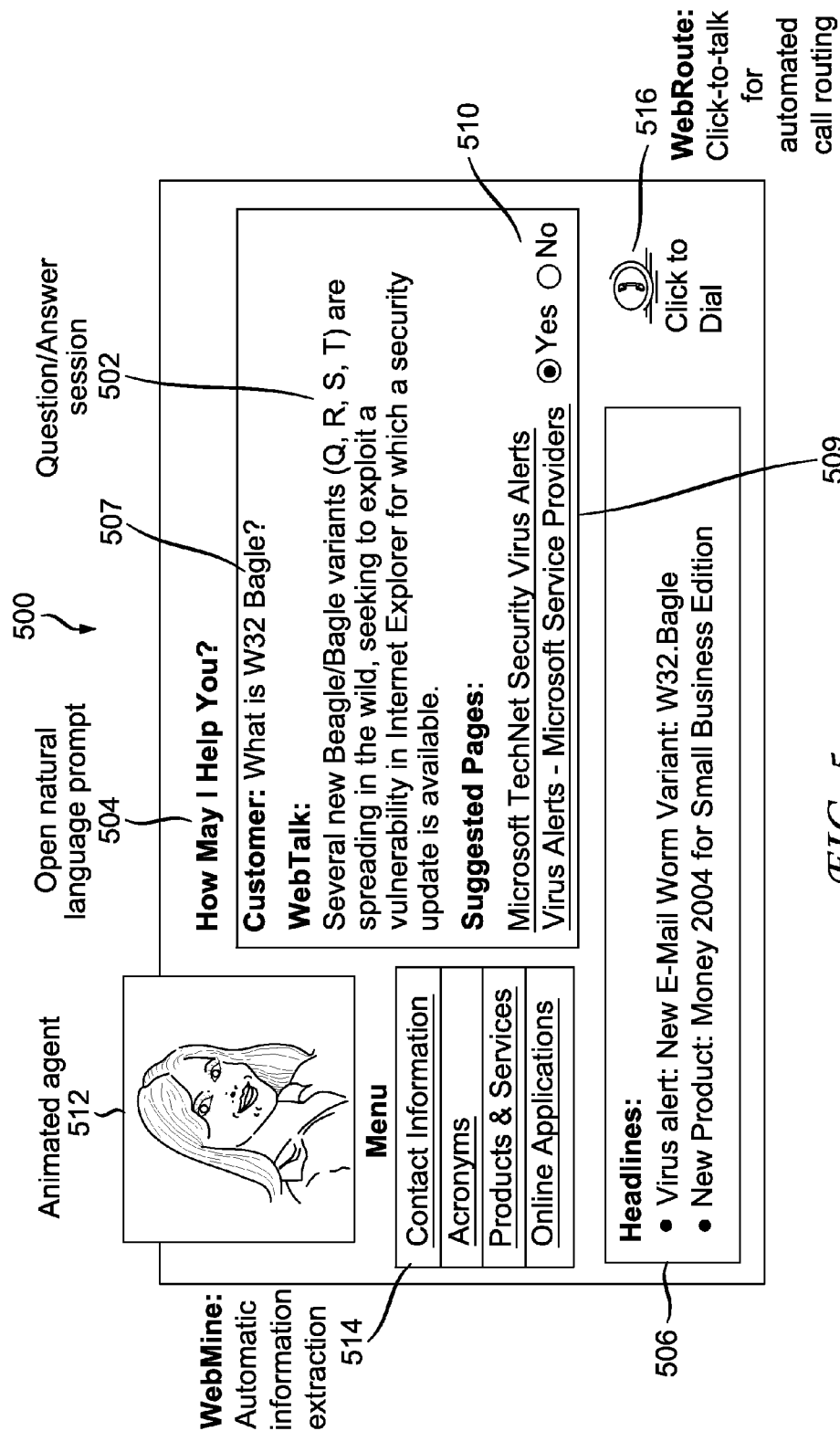**WebRoute:**
Click-to-talk
for
automated
call routing

FIG. 5

ALERT DRIVEN INTERACTIVE INTERFACE TO A WEBSITE MINING SYSTEM

This application is a continuation of prior application Ser. No. 11/264,650, filed Nov. 1, 2005, the disclosure of which is incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

The present invention relates generally to website mining, and more particularly to an alert driven interactive interface to a website mining system.

The Internet offers access to an enormous amount of information. If a current event occurs, many stories about the current event are accessible via the Internet. For example, if a scientist develops a new treatment for a disease, headlines associated with this new treatment are soon available on internet news sites. A headline is an important piece of news and can be, for example, the title of a story.

The determination of which pieces of information are newsworthy is, however, a difficult task. Typically, the headlines and stories are manually written to a web page. The manual entry of headlines and stories is labor intensive and takes time before the story or headline can be published on the Internet. As news changes quickly, the determination of which pieces of information is newsworthy is an on-going task.

Also, if a user wants to find out more information about the subject matter of a headline, the user often has to access a separate search engine to perform a search. The user then has to input search terms into a search engine to retrieve web pages relating to the search terms. A web search engine typically replies to a search request with numerous web pages having some information about the subject of the search request. These web pages may not have the specific information that the user was looking for, and the user may not find this out until searching through all of the returned web pages.

BRIEF SUMMARY OF THE INVENTION

Therefore, there remains a need to rapidly identify pieces of information as newsworthy and to provide a single interface for enabling a user to ask a question relating to a headline based on these newsworthy pieces of information. Further, there remains a need to provide direct and precise responses to the question on this same interface.

In accordance with the principles of the present invention, a web server includes a headlines module for automatically generating headlines based on data retrieved from a network (e.g., World Wide Web). The web server also includes an interactive agent for generating responses to inquiries relating to the headlines based on the data. The interactive agent may be a search engine for searching data retrieved from the network, a question answer system for responding to said inquiries with precise answers, and a virtual dialog agent conversing with a user to perform tasks or exchange information with the user. The web server can also include a data mining module for extracting data from web pages and for assigning attributes to the data. The data extracted is then put into a structured format by the data mining module. The attributes facilitate the determination of whether the data is newsworthy. The web server may also include a call router for receiving a request, correlating a telephone number (e.g., associated with an agent for answering said request) with the request, and initiating a call to the telephone number. The call router may communicate with the data mining module to obtain the telephone number.

As described above, the data mining module assigns attributes to the data. The attributes can include time, name of a person, name of a place, name of a service, name of a product, properties of products and services (e.g., price of a product, rate of a service), and/or Products and Service Ontology (i.e., a hierarchical tree). In one embodiment, the headlines module selects headlines generated from information that has changed over time or information that has a particular characteristic (e.g., a geographic limitation). A headline that is generated from information that has changed over time is a headline based on information that has changed from a first point in time to a second point in time.

In one embodiment, the inquiries are in the form of natural language queries, keywords, and keyword search patterns.

These and other advantages of the invention will be apparent to those of ordinary skill in the art by reference to the following detailed description and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a high level block diagram of a network having a web server with an interactive agent and a headlines module in accordance with an embodiment of the invention;

FIG. 2 is a more detailed block diagram of a web server in accordance with an embodiment of the invention;

FIG. 3 is a flowchart showing the steps performed by the web server in accordance with an embodiment of the invention;

FIG. 4 shows a high level block diagram of a computer system which may be used in an embodiment of the invention; and

FIG. 5 is a screen shot of a web page generated by the web server in accordance with an embodiment of the invention.

DETAILED DESCRIPTION

The identification of information that is newsworthy is a difficult, burdensome and time-consuming task. Often, someone has to manually search for and input a news story and an associated headline into a computer to display the story and headline on a web page. The retrieval of follow-up information about a subject matter of the headline can also be a troublesome endeavor. People often have to access one web page for news and another web page, such as a search engine, for retrieving follow-up information about a subject matter of a headline. Further, a search engine typically retrieves web pages related to search terms. The person usually has to then access each web page returned by the search engine to evaluate the search results. Sometimes, none of the web pages have the answer that the person was looking for.

FIG. 1 shows a high level block diagram of a network including a client computer (i.e., client) **104** and a web server **106**. A user of the client **104** uses web browsing software **110** to access web pages retrieved from the web server **106** over the network **112**.

The web server **106** hosts an interactive agent **114** and a headlines module **116**. As described in more detail below, the interactive agent **114** provides an interface on a web page for a user to inquire about a particular subject relating to a headline. The interface is any area (e.g., a dialog box) on the web page that the user can input a question about a particular subject matter relating to a headline.

The headlines module **116** transmits headlines to the client **104** (i.e., to the web browsing software **110**). The headline may be, for example, a page banner on the web page. The headlines transmitted to the client **104** are automatically gen-

erated by the headlines module **116** and based on information determined to be newsworthy. As described in more detail below, the information is determined to be newsworthy based on attributes of the data that are mined by a data mining module.

The headlines can be generated from information that has changed over time. A headline generated from information that has changed over time is a headline based on information that has changed from a first point in time to a second point in time. For example, a headline may be a price reduction of a laptop for sale. The price of the laptop has changed over time—it has been reduced from $X to $Y, where Y is less than X, within a period of time.

The headlines can also be generated from information that has one or more characteristic. Headlines generated from information having one or more characteristics may be based on, for instance, a geographic limitation. An example of a headline that is generated based on information that has a particular characteristic is when a new web page is added to a web site about a new product. The headlines module **116** may generate a headline based on the subject matter (i.e., product) of the new web page if the product has a particular characteristic, such as that it is software released within the last two days. The determination that information has a particular characteristic is determined by a data mining module.

Further, the headlines module **116** may determine which headlines to display out of many possible headlines. For example, over the course of a predetermined period of time (e.g., a day), the headlines module **116** may generate a particular number (e.g., 100) of potential headlines. The headlines module **116** may then select a predetermined subset of the generated headlines for display on the web browsing software **110**.

The headlines provide the user with a potential subject matter that the user can ask about in an inquiry. In one embodiment, the inquiries are related to the headlines. The headlines may also change as the user poses an inquiry. For example, if a headline relates to the price of computers and the user asks how much a particular computer model costs, the next headline may be about the particular computer model. The change in headline may provide the user with additional information associated with his inquiry and may affect the user's next question(s).

The interactive agent **114** enables the user to ask, via the web browsing software **110**, one or more inquiries related to the headlines. Rather than responding to the user's inquiry with multiple web pages, the interactive agent **114** provides a precise and direct answer to the user's inquiry. The interactive agent **114** may also provide suggested web pages to the user if the user wants to obtain follow-up information related to the inquiry.

FIG. **2** shows a block diagram of web server **202** having an interactive agent **204** and a headlines module **206**. The interactive agent **204** and the headlines module **206** communicate with a data mining module **208** to retrieve data from database **210**. The web server **202** uses the data from database **210** to generate headlines and to respond to inquiries.

The data mining module **208** extracts data from web pages accessed via the network (e.g., Internet) **112** and stores the data in database **210**. In one embodiment, the data mining module **208** converts the data into a structured format (e.g., organizes the data). The data mining module **208** assigns attributes to the extracted data. These attributes facilitate the automatic generation of headlines **209**. An attribute that is assigned to extracted data is a time associated with the information. The data mining module **208** may review the web page and determine a time associated with the information.

Other data attributes that can be assigned to data include the names of people, places, products, etc. extracted from the web page. For example, data mining module **208** may assign the geographic location of a service offered by a web page as an attribute of the data extracted from the web page.

In one embodiment, the user of the client **104** defines the attributes that the data mining module **208** extracts. Alternatively, the web server **202** defines the attributes that the data mining module **208** extracts. The attributes are stored with the data in the database **210**.

The data mining module **208** communicates with interactive agent **204** to respond to one or more inquiries **211**. In one embodiment, the interactive agent **204** is a question/answer (QA) system. The QA system recognizes the context of an inquiry **211** with respect to previous inquiries. For example, if a headline **209** is "Virus X has infected 50,000 personal computers over the past two days" and a user asks "What software counteracts Virus X?," the interactive agent **204** replies "Software A counteracts Virus X." The user may then ask, "How much is the software?" The interactive agent **204** recognizes that "the software" in the second inquiry relates back to the answer to the user's first inquiry—i.e., "Software A". "Software A" is identified from its context. Specifically, "Software A" is the main object in the first question and the second phrase having "the software" implies that it refers to an instantiation (i.e., "Software A") mentioned previously.

Instead of being a QA system, the interactive agent **204** may alternatively be a search engine. The interactive agent **204** then responds to inquiries with web pages related to the user's inquiry **211**. Instead of being a QA system, the interactive agent **204** may alternatively be a virtual dialog agent, which not only answers users' questions, but also assists the user in performing transactions such as bill payment, guides the user to ask legitimate questions, informs the user of the system's updates, etc.

In one embodiment, the headlines **209** generated by the headlines module **206** may change based on the inquiries **211** asked by the user. A follow up headline to the example above may be headlines associated with the price of all software countering Virus X (including Software A). As the user's inquiries **211** vary, the headlines vary according to the inquiries **211** and/or the responses to the inquiries **211**.

The web server **202** may also include a call routing module **212**. The call routing module **212** displays on the web browsing software **110** a telephone number of an agent who is knowledgeable in the subject matter of the inquiry (or response). In one embodiment, the call routing module **212** associates a phone number with a user's request (e.g., my phone doesn't work). In the example above, the call routing module **212** may provide the telephone number of someone who works in a computer store that sells Software A and is knowledgeable in Software A.

In another embodiment, rather than providing a telephone number to the web browsing software **110** in response to a request **213**, the call routing module **212** provides an icon (e.g., of a telephone) to the web browsing software **110**. The icon is the interface between the user and the call routing module **212**. The call routing module **212** retrieves the telephone number from the data mining module **208**. In one embodiment, the telephone number is an attribute of the data stored in the database **210**. All of the information extracted from a web page may, therefore, have a telephone number associated with the information.

Alternatively, the call routing module **212** requests a telephone number from the database **210** upon a request **213** from the web browsing software **110**. The request **213** may be implemented by a user clicking on the icon displayed by the

web browsing software **110**. Once the icon is clicked, the call routing module **212** requests the data mining module **208** to extract a telephone number from data related to the inquiry (stored in the database **210**). The call routing module **212** then calls the telephone number of the knowledgeable individual(s), for example, through Voice Over Internet Protocol (VoIP).

FIG. **3** illustrates a flow chart of the steps performed by the web server **202**. The web server **202** first retrieves data from web pages on the network **112** in step **302**. This retrieval process can occur periodically (e.g., once every day) or at a scheduled time (e.g., Mondays and Wednesdays at 2 PM). The data mining module **208** then mines the data and extracts attributes from the data. The data mining module **208** assigns these attributes to the data in step **304**. For example, if a web page has a date at the beginning of a story, and if the data mining module **204** extracts the story and various pieces of information from the story, the data mining module **204** assigns the date to the story and the pieces of information from the story.

The data mining module **208** then determines if the data is newsworthy in step **305**. This determination is based on the attributes assigned to the data. The data mining module **208** calculates a measure of the significance of the attribute(s), either viewed as a time series or as a static collection with respect to a predetermined standard of what is newsworthy. This predetermined standard of what is newsworthy may remain fixed or may change. If the data mining module **208** determines that the data is not newsworthy, the data mining module **208** stores the data in the database **210** in step **306**. In one embodiment, the data mining module **208** mines the data such that the link between the attribute(s) and the web pages that correspond to the data (and, therefore, to the attributes) are maintained.

If the data mining module **208** determines that the data is newsworthy, the data is stored and the headlines module **206** generates headlines **209** based on the stored data in step **307**. It should be noted that the data may have been stored prior to this step. The headlines module **206** displays these headlines **209** on the web browsing software **110**. The headlines module **206** may change the headlines **209** displayed on the web browsing software **110** (e.g., periodically) by providing new headlines to the web browsing software **110**. As described above, the headlines module **206** may change the headlines **209** based on the attributes of the data. In another embodiment, the user can customize which headlines are provided to the web browsing software **110** via options displayed on the web browsing software. Further, the data mining module **208** may determine that data is going to become newsworthy based on the previous attributes associated with the data.

This determination may be based on the tracking of a website (and therefore data) over a period of time. For example, if a particular term appears on a web site four times over the course of a year and then begins appearing on the same website hundreds of times over a period of days, the data mining module **208** may determine that this data has become newsworthy based on the recent frequency of the particular term (or terms). This determination can automatically occur and facilitates the rapid determination of which data is newsworthy. In one embodiment, the data mining module **208** assigns the number of times that a particular term appears on a web site as an attribute to the data and uses this attribute to later determine that the information has become newsworthy. As a result of the information becoming newsworthy, a corresponding headline is generated.

The interactive agent **204** then determines whether the user provides an inquiry **211** relating to a headline **209** in step **308**. If the interactive agent **204** does not receive an inquiry, the

interactive agent **204** waits in a loop for an inquiry **211**. During this wait loop, the headlines module **206** may generate one or more new headlines **209** (in step **306**). If the interactive agent **204** receives an inquiry unrelated to a headline **209**, the interactive agent **204** may retrieve a response from the data stored in the database **210** or may generate new headlines in step **306**. If the interactive agent **204** receives an inquiry **211** related to a headline **209**, the interactive agent **204** communicates with the data mining module **208** to search for a response. The interactive agent **204** then provides the response to the web browsing software **110** in step **310**. In some embodiments, the interactive agent **204** provides several responses to the web browsing software **110** and the user selects the most appropriate response.

A high level block diagram of a computer implementation of the web server **202** is shown in FIG. **4**. Web server **402** contains a processor **404** which controls the overall operation of the computer by executing computer program instructions which define such operation. The computer program instructions may be stored in a storage device **412** (e.g., magnetic disk) and loaded into memory **410** when execution of the computer program instructions is desired. Thus, the web server operation will be defined by computer program instructions stored in memory **410** and/or storage **412** and the computer will be controlled by processor **404** executing the computer program instructions. Computer **402** also includes one or more network interfaces **406** for communicating with other devices via a network. Web server **402** also includes input/output **408** which represents devices which allow for user interaction with the computer **402** (e.g., display, keyboard, mouse, speakers, buttons, etc.). One skilled in the art will recognize that an implementation of an actual computer will contain other components as well, and that FIG. **4** is a high level representation of some of the components of such a computer for illustrative purposes.

FIG. **5** shows a screen shot of a web page (also referred to below as an interface) **500** generated by web server **402** and displayed by the web browsing software **110**. The web page **500** has a question/answer session **502** provided by the interactive agent. The interactive agent **502** begins a question/answer session with a natural language prompt **504**. In one embodiment, the natural language prompt **504** is a text-based question (e.g., "How May I Help You?"), as shown. The interactive agent **502** may also verbalize the initial prompt (e.g., "How May I Help You?"). The question may also be "spoken" by the web server **402** as well as displayed on the web page (i.e., verbal and text-based question).

The web page **500** also includes headlines **506** generated by the headlines module. Examples of headlines **506** include 1) Virus alert—New E-Mail Worm Variant: W32.Bagle and 2) New Product: Money 2004 for Small Business Edition. As described above, the headlines **506** provided by the headlines module to the web browsing software may change periodically or in response to an inquiry.

The user (also referred to below and in FIG. **5** as customer) then poses an inquiry **507** related to a headline **506**. As shown, the customer first asks, "What is W32 Bagle?" The interactive agent retrieves the inquiry **507** and communicates with the data mining module to obtain a response to the inquiry **507**. When a response is retrieved, the interactive agent provides the response **508** to the web browsing software **110** for display. For example, in response to the previous customer question of "What is W32 Bagle?", the interactive agent replies, "Several new Beagle/Bagle variants (Q, R, S, T) are spreading in the wild, seeking to exploit a vulnerability in Internet Explorer for which a security update is available."

In one embodiment, the interactive agent may also provide suggested web pages 509 as part of a response. The suggested web pages 509 are web pages relating to the inquiry 507 and/or response 508. The question/answer session 502 may also include a user feedback section 510. The user feedback section 510 provides a user with an opportunity to provide feedback on the responses 508 provided by the web server. The user can provide whether the response 508 was what the user was looking for by clicking a Yes or No button, as shown. Although shown with a Yes or No button, the user feedback section 510 may be a dialog box for a user to type in what the user thought about the response 508. The user's feedback may also be verbal.

The web page 500 can additionally include an animated agent 512 that moves and/or provides different expressions based on the headlines and/or question/answer session 502. The animated agent 512 can also provide assistance to a user on how to use the interface 500 or a module in the interface 500. The animated agent 512 may be any shape or size and may speak, make gestures, etc.

In one embodiment, the web page 500 also includes a WebMine 514. The WebMine 514 is provided by the data mining module described above and enables a user to extract information from the web. Additionally, the web page 500 includes a WebRoute 516 for a user to click a button to enable the user to speak to someone on the telephone who is knowledgeable in the subject matter of the headline.

The functionality of one or more of the modules described above can be combined with any number of the other modules. For example, the functionality associated with the data mining module (e.g., WebMine 514) can be combined with the call routing module (e.g., Web Route 516) into a single module on the interface 500.

Further, one or more of the different modules in the interface 500 can be employed in a cooperative manner. For example, a user may log onto the web page 500 and request assistance from the animated agent 512. The animated agent 512 provides assistance to the user, such as by describing the functions of each aspect of the web page 500 (and, therefore, of each module). In some embodiments, the user can communicate with the animated agent 512 in a variety of manners, such as verbally or via textual input. The user can then use the WebMine 514 to extract information from the web. For example, the user can use the WebMine 514 to extract product information from the web. The user would select "Products and Services" from the Menu and a follow-up menu may be provided to the user. Alternatively, the user selects "Products and Services" from the Menu and the WebMine 514 extracts information about different products and services (e.g., that meet a predetermined criteria, such as software that has been released within the last two months). Alternatively, the user can type in a product that the user is searching for.

The headlines module may then generate headlines 506 based on the information extracted by the WebMine 514. As described above, the generation of headlines 506 may be based on the attributes assigned to the information extracted from the web. The headlines module displays the headlines 506 associated with the extracted information. The user can then pose an inquiry 507 in the question/answer session 502. The inquiry 507 may be related to one or more of the headlines 506. The interactive agent receives the inquiry 507 and then uses the stored data extracted by the WebMine 514 to provide a response 508 to the user. The interactive agent may also provide suggested web pages 509 to the user. These suggested web pages can include web pages related to the inquiry 507, the response 508, and/or to the headlines 506. At any time throughout this process, the user can also use

WebRoute 516 to call someone knowledgeable in the subject matter of the headlines. In one embodiment, the WebRoute 516 determines which person to call from a list of potential people based on the headlines 506. In another embodiment, the WebRoute 516 determines which person to call from a list of people based on the response 508 to the inquiry 507. Thus, as described, each module in the interface 500 can work with one or more of the other modules in the interface 500 to provide one or more services to a user or customer.

The foregoing Detailed Description is to be understood as being in every respect illustrative and exemplary, but not restrictive, and the scope of the invention disclosed herein is not to be determined from the Detailed Description, but rather from the claims as interpreted according to the full breadth permitted by the patent laws. It is to be understood that the embodiments shown and described herein are only illustrative of the principles of the present invention and that various modifications may be implemented by those skilled in the art without departing from the scope and spirit of the invention. Those skilled in the art could implement various other feature combinations without departing from the scope and spirit of the invention.

The invention claimed is:

1. A method comprising:
extracting data from web pages via a network;
assigning attributes to the data;
determining if data from a particular web page is newsworthy based on calculation of a measure of significance of attributes associated with the data from the particular web page with respect to a standard, the measure of significance of attributes viewed as a time series with respect to the standard, the standard changing over time;
receiving a first inquiry from a user;
automatically generating headlines for display to the user based on data from web pages that has changed from a first point in time to a second point in time and newsworthy data, wherein headlines displayed to the user vary according to the first inquiry, a previous inquiry from the user related to one of the headlines, and an answer to the previous inquiry, and the first inquiry is related to the answer to the previous inquiry;
generating a response to the first inquiry comprising newsworthy data, the response based on the first inquiry, the previous inquiry, and the answer to the previous inquiry;
identifying a telephone number of an agent knowledgeable in subject matter of the first inquiry; and
initiating a telephone call to the telephone number in response to a request.

2. The method of claim 1 further comprising:
conversing with the user to perform tasks and exchange information with the user.

3. An apparatus comprising:
a processor; and
a memory to store computer program instructions, the computer program instructions when executed on the processor cause the processor to perform operations comprising:
extracting data from web pages via a network;
assigning attributes to the data;
determining if data from a particular web page is newsworthy based on calculation of a measure of significance of attributes associated with the data from the particular web page with respect to a standard, the measure of significance of attributes viewed as a time series with respect to the standard, the standard changing over time;
receiving a first inquiry from a user;

automatically generating headlines for display to the user based on data from web pages that has changed from a first point in time to a second point in time and newsworthy data, wherein headlines displayed to the user vary according to the first inquiry, a previous inquiry from the user related to one of the headlines, and an answer to the previous inquiry, and the first inquiry is related to the answer to the previous inquiry;

generating a response to the first inquiry comprising newsworthy data, the response based on the first inquiry, the previous inquiry, and the answer to the previous inquiry;

identifying a telephone number of an agent knowledgeable in subject matter of the first inquiry; and

initiating a telephone call to the telephone number in response to a request.

4. The apparatus of claim **3**, the operations further comprising:

conversing with the user to perform tasks and exchange information with the user.

5. A non-transitory computer readable medium storing computer program instructions for formatting recipient identifiers in an electronic communication, which, when executed on a processor, cause the processor to perform operations comprising:

extracting data from web pages via a network;

assigning attributes to the data;

determining if data from a particular web page is newsworthy based on calculation of a measure of significance of attributes associated with the data from the particular web page with respect to a standard, the measure of significance of attributes viewed as a time series with respect to the standard, the standard changing over time;

receiving a first inquiry from a user;

automatically generating headlines for display to the user based on data from web pages that has changed from a first point in time to a second point in time and newsworthy data, wherein headlines displayed to the user vary according to the first inquiry, a previous inquiry from the user related to one of the headlines, and an answer to the previous inquiry, and the first inquiry is related to the answer to the previous inquiry;

generating a response to the first inquiry comprising newsworthy data, the response based on the first inquiry, the previous inquiry, and the answer to the previous inquiry;

identifying a telephone number of an agent knowledgeable in subject matter of the first inquiry; and

initiating a telephone call to the telephone number in response to a request.

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